Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Cancelled)

2. (Currently Amended) The printhead of claim ~~1~~ 55 wherein the heater element is positioned less than 25 microns from the ~~ejection aperture~~nozzle.

3. (Currently Amended) The printhead of claim ~~1~~ 55 wherein the heater element is positioned less than 10 microns from the ~~ejection aperture~~nozzle.

4. (Currently Amended) The printhead of claim ~~1~~ 55 wherein the heater element is positioned less than 5 microns from the ~~ejection aperture~~nozzle.

5. (Cancelled)

6. (Currently Amended) The printhead of claim ~~1~~ 55 being configured to print on a page and to be a page-width printhead.

7. (Currently Amended) The printhead of claim ~~1~~ 55 wherein each heater element is in the form of a cantilever beam.

8. (Currently Amended) The printhead of claim ~~1~~ 55 wherein ~~each~~ the heater element is configured such that an actuation energy of less than 500 nanojoules (nJ) is required to ~~be applied to that heater element to heat that heater element sufficiently to~~ form ~~a said~~ the vapour bubble ~~in the bubble forming liquid thereby~~ to cause the ejection of ~~a said~~the drop.

9. (Currently Amended) The printhead of claim ~~1~~ 55 configured to receive a supply of the ~~ejectable liquid~~ink at an ambient temperature, wherein ~~each~~ the heater element is configured such that the energy required to ~~be applied thereto to heat said part to~~ cause the ejection of ~~a said~~the drop is less than the energy required to heat a volume of said ~~ejectable~~

~~liquid~~ink equal to the volume of the said drop, from a temperature equal to said ambient temperature to ~~said~~ the ink's boiling point.

10. (Currently Amended) The printhead of claim ~~1~~ 55 comprising a substrate having a substrate surface, wherein the areal density of the nozzles relative to the substrate surface exceeds 10,000 nozzles per square cm of substrate surface.

11. (Currently Amended) The printhead of claim ~~1~~ 55 wherein ~~each~~ the heater element has two opposite sides ~~and is configured~~ such that ~~a said gas~~the vapour bubble ~~formed by that heater element~~ is formed at both of said sides of ~~that~~ the heater element.

12. (Cancelled)

13. (Currently Amended) The printhead of claim ~~1~~ 55 comprising a structure that is formed by chemical vapor deposition (CVD), the nozzles being incorporated on the structure.

14. (Currently Amended) The printhead of claim ~~1~~ 55 comprising a structure which is less than 10 microns thick, the nozzles being incorporated on the structure.

15. (Currently Amended) The printhead of claim ~~1~~ 55 comprising ~~a plurality of nozzle chambers each corresponding to a respective nozzle, and~~ a plurality of ~~said~~ the heater elements being disposed within each chamber, the heater elements within each chamber being formed on different respective layers to one another.

16. (Currently Amended) The printhead of claim ~~1~~ 55 wherein ~~each~~ the heater element is formed of solid material more than 90% of which, by atomic proportion, is constituted by at least one periodic element having an atomic number below 50.

17. (Currently Amended) The printhead of claim ~~1~~ 55 wherein ~~each~~ the heater element includes solid material and is configured for a mass of less than 10 nanograms of the solid material ~~of that heater element~~ to be heated to ~~a temperature above said boiling point thereby~~

~~to heat said part of the bubble forming liquid to a temperature above said boiling point~~generate the vapour bubble to ~~cause the ejection~~eject of ~~a said~~the drop.

18. (Currently Amended) The printhead of claim ~~1~~ 55 wherein ~~each~~ the heater element is substantially covered by a conformal protective coating, the coating ~~of each heater element~~ having been applied substantially to all sides of the heater element simultaneously such that the coating is seamless.

19. (Cancelled)

20. (Currently Amended) The system of claim ~~19~~ 56 wherein the heater element is positioned less than 25 microns from the nozzle~~ejection aperture~~.

21. (Currently Amended) The system of claim ~~19~~ 56 wherein the heater element is positioned less than 10 microns from the nozzle~~ejection aperture~~.

22. (Currently Amended) The system of claim ~~19~~ 56 wherein the heater element is positioned less than 5 microns from the nozzle~~ejection aperture~~.

23. (Cancelled)

24. (Cancelled)

25. (Currently Amended) The system of claim ~~19~~ 56 being configured to print on a page and to be a page-width printhead.

26. (Currently Amended) The system of claim ~~19~~ 56 wherein ~~each~~ the heater element is in the form of a cantilever beam.

27. (Currently Amended) The system of claim ~~19~~ 56 wherein ~~each~~ the heater element is configured such that an actuation energy of less than 500 nanojoules (nJ) is required to be applied to ~~that heater element to heat that~~the heater element ~~sufficiently~~ to form ~~a said~~

~~bubble~~the vapour bubble ~~in the bubble forming liquid thereby to cause the ejection of a said drop~~.

28. (Currently Amended) The system of claim ~~19~~56, wherein the printhead is configured to receive a supply of the ejectable liquid at an ambient temperature, and wherein each heater element is configured such that the energy required to be applied thereto to heat said part to cause the ejection of a said drop is less than the energy required to heat a volume of said ejectable liquid equal to the volume of the said drop, from a temperature equal to said ambient temperature to said boiling point.

29. (Currently Amended) The system of claim ~~19~~ 56 comprising a substrate having a substrate surface, wherein the areal density of the nozzles relative to the substrate surface exceeds 10,000 nozzles per square cm of substrate surface.

30. (Currently Amended) The system of claim ~~19~~ 56 wherein ~~each~~ the heater element has two opposite sides and is configured such that a said ~~gas~~ vapour bubble ~~formed by that heater element~~ is formed at both of said sides of ~~that~~ the heater element.

31. (Cancelled)

32. (Currently Amended) The system of claim ~~19~~ 56 comprising a structure that is formed by chemical vapor deposition (CVD), the nozzles being incorporated on the structure.

33. (Currently Amended) The system of claim ~~19~~ 56 comprising a structure which is less than 10 microns thick, the nozzles being incorporated on the structure.

34. (Currently Amended) The system of claim ~~19~~ 56 comprising ~~a plurality of nozzle chambers each corresponding to a respective nozzle, and~~ a plurality of ~~said~~ the heater elements being disposed within each chamber, the heater elements within each chamber being formed on different respective layers to one another.

35. (Currently Amended) The system of claim ~~19~~ 56 wherein ~~each~~ the heater element is formed of solid material more than 90% of which, by atomic proportion, is constituted by at least one periodic element having an atomic number below 50.

36. (Currently Amended) The system of claim ~~19~~ 56 wherein each heater element includes solid material and is configured for a mass of less than 10 nanograms of the solid material of that heater element to be heated to a temperature above said boiling point thereby to heat said part of the bubble forming liquid to a temperature above said boiling point to cause the ejection of a said drop.

37. (Currently Amended) The system of claim ~~19~~ 56 wherein ~~each~~ the heater element is substantially covered by a conformal protective coating, the coating ~~of each heater element~~ having been applied substantially to all sides of the heater element simultaneously such that the coating is seamless.

38. (Cancelled)

39. (Currently Amended) The method of claim ~~38~~ 57 wherein, the heater element is positioned less than 25 microns from the nozzle~~ejection aperture~~

40. (Currently Amended) The method of claim ~~38~~ 57 wherein the heater element is positioned less than 10 microns from the nozzle~~ejection aperture~~

41. (Currently Amended) The method of claim ~~38~~ 57 wherein the heater element is positioned less than 5 microns from the nozzle~~ejection aperture~~.

42. (Cancelled)

43. (Currently Amended) The method of claim ~~38~~ 57 wherein the ~~bubble forming liquid~~ink is fed to the ~~at least one~~ heater element so that it substantially surrounds the heater element.

44. (Currently Amended) The method of claim ~~38~~ 57 wherein said step of heating ~~the at least one~~the heater element is effected by applying an actuation energy of less than 500nJ to each such heater element.

45. (Currently Amended) The method of claim ~~38~~ 57 wherein prior to the step of heating the at least one heater element, a supply of the ~~ejectable liquid~~ink, at an ambient temperature, is fed to the printhead, wherein the step of heating is effected by applying heat energy to the ~~at least one~~ heater element, wherein said applied heat energy is less than the energy required to heat a volume of ~~said ejectable liquid~~the ink equal to the volume of said drop, from a temperature equal to said ambient temperature to said boiling point.

46. (Currently Amended) The method of claim ~~38~~ 57 wherein the printhead includes a substrate on which said nozzles are disposed, the substrate having a substrate surface and the areal density of the nozzles relative to the substrate surface exceeding 10,000 nozzles per square cm of substrate surface.

47. (Currently Amended) The method of claim ~~38~~ 57 wherein the ~~at least one~~ heater element has two opposing sides and the bubble is generated at both of said sides of each heated heater element

48. (Cancelled)

49. (Currently Amended) The method of claim ~~38~~ 57 wherein the printhead has a structure that is less than 10 microns thick and which incorporates said nozzles thereon.

50. (Currently Amended) The method of claim ~~38~~ 57 wherein the nozzles of the printhead are formed by chemical vapor deposition (CVD).

51. (Currently Amended) The method of claim ~~38~~ 57 wherein ~~the printhead has a plurality of nozzle chambers each chamber corresponding to a respective nozzle and a~~ plurality of said heater elements are formed in each of the chambers, such that the heater elements in each chamber are formed on different respective layers to one another.

52. (Currently Amended) The method of claim ~~38~~ 57 wherein the heater elements are formed of solid material more than 90% of which, by atomic proportion, is constituted by at least one periodic element having an atomic number below 50.

53. (Currently Amended) The method of claim ~~38~~ 57 wherein the heater elements include solid material and wherein the step of heating at least one heater element comprises heating a mass of less than 10 nanograms of the solid material of each such heater element to a temperature above said boiling point.

54. (Currently Amended) The method of claim ~~38~~ 57 wherein a conformal protective coating is applied to substantially to all sides of each of the heater elements simultaneously, such that the coating is seamless.

55. (New) An inkjet printhead comprising:

a wafer substrate having an ink ejection side and an ink supply side;

a plurality of nozzles formed in a nozzle plate supported on the ink ejection side;

a chamber for holding ink in fluid communication with each of the nozzles respectively;

a heater element suspended in each of the chambers respectively for immersion in the ink, the heater element configured as a beam extending in a plane parallel to that of the nozzle plate such that heating the heater element generates a vapour bubble that ejects a drop of ink from the nozzle; and,

an ink supply path extending from the ink supply side of the wafer to each of the chambers respectively; wherein,

the heater element is spaced less than 50 microns from the nozzle and the ink supply path is at least quadruple the spacing of the heater element from the nozzle.

56. (New) A printer system which incorporates a printhead, the printhead comprising:
a wafer substrate having an ink ejection side and an ink supply side;

a plurality of nozzles formed in a nozzle plate supported on the ink ejection side;

a chamber for holding ink in fluid communication with each of the nozzles respectively;

a heater element suspended in each of the chambers respectively for immersion in the ink, the heater element configured as a beam extending in a plane parallel to that of the nozzle plate such that heating the heater element generates a vapour bubble that ejects a drop of ink from the nozzle; and,

an ink supply path extending from the ink supply side of the wafer to each of the chambers respectively; wherein,

the heater element is spaced less than 50 microns from the nozzle and the ink supply path is at least quadruple the spacing of the heater element from the nozzle.

57. (New) A method of ejecting ink from a printhead, the printhead comprising a wafer substrate having an ink ejection side and an ink supply side;

a plurality of nozzles formed in a nozzle plate supported on the ink ejection side;

a chamber for holding ink in fluid communication with each of the nozzles respectively;

a heater element suspended in each of the chambers respectively for immersion in the ink, the heater element configured as a beam extending in a plane parallel to that of the nozzle plate; and,

an ink supply path extending from the ink supply side of the wafer to each of the chambers respectively; wherein,

the heater element is spaced less than 50 microns from the nozzle and the ink supply path is at least quadruple the spacing of the heater element from the nozzle.;

the method comprising the steps of:

feeding ink into the chamber;

heating the heater element to a temperature above the boiling point of the ink to form a vapour bubble such that a drop of the ink is ejected through the nozzle corresponding to that heater element.